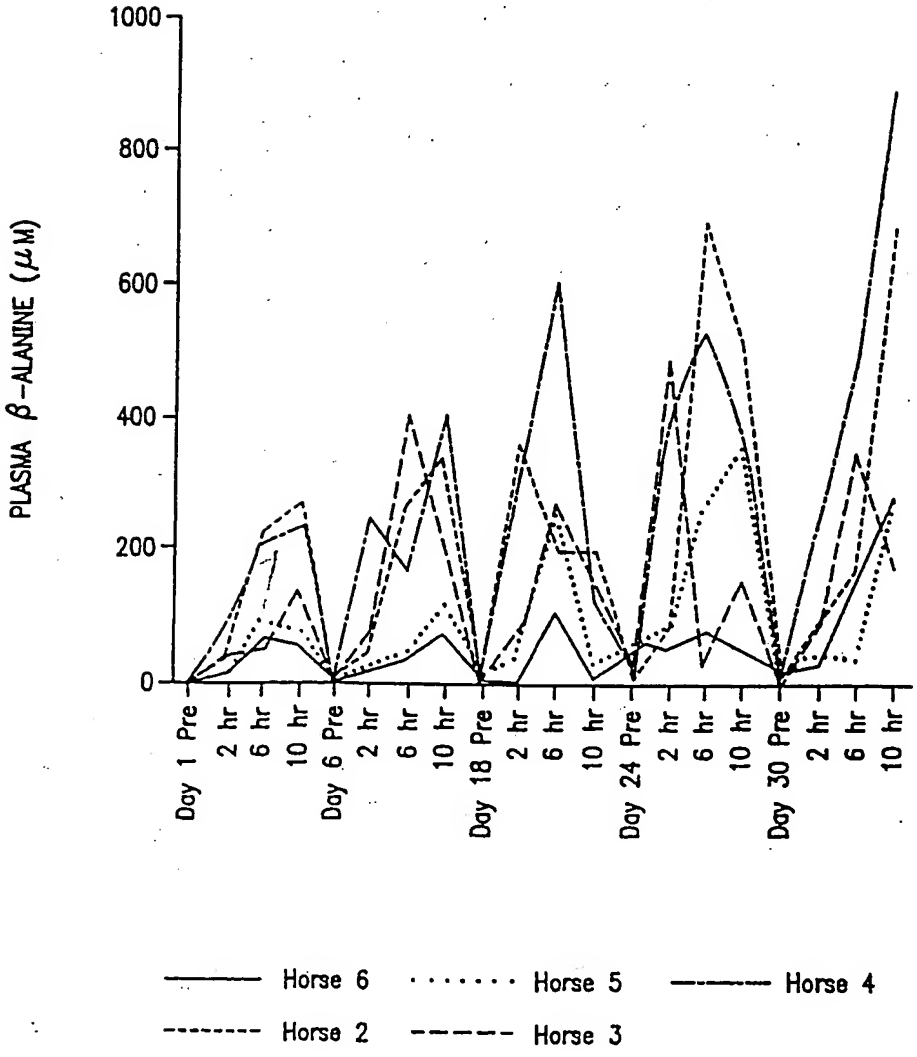

PLASMA β-ALANINE (μM)
1000
800
600
400
200
0
Day 1 Pre
2 hr
6 hr
10 hr
Day 6 Pre
2 hr
6 hr
10 hr
Day 18 Pre
2 hr
6 hr
10 hr
Day 24 Pre
2 hr
6 hr
10 hr
Day 30 Pre
2 hr
6 hr
10 hr
Horse 6
Horse 5
Horse 4
Horse 2
Horse 3

FIG. 1

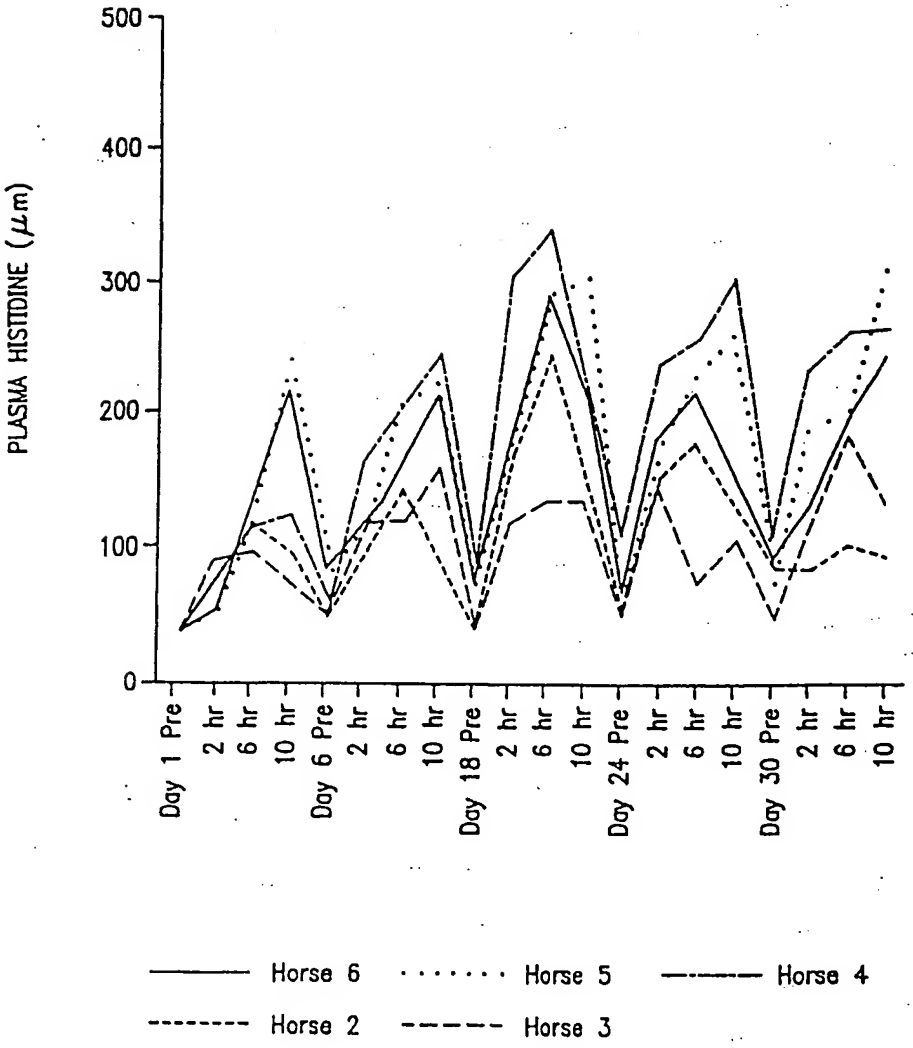

PLASMA HISTIDINE (μm)
500
400
300
200
100
0
Day 1 Pre
2 hr
6 hr
10 hr
Day 6 Pre
2 hr
6 hr
10 hr
Day 18 Pre
2 hr
6 hr
10 hr
Day 24 Pre
2 hr
6 hr
10 hr
Day 30 Pre
2 hr
6 hr
10 hr
Horse 6
Horse 5
Horse 4
Horse 2
Horse 3

FIG. 2

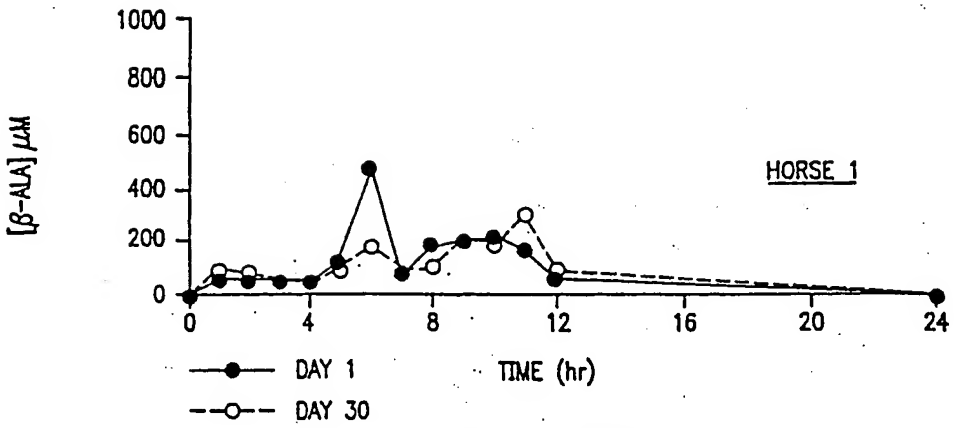


FIG. 3A

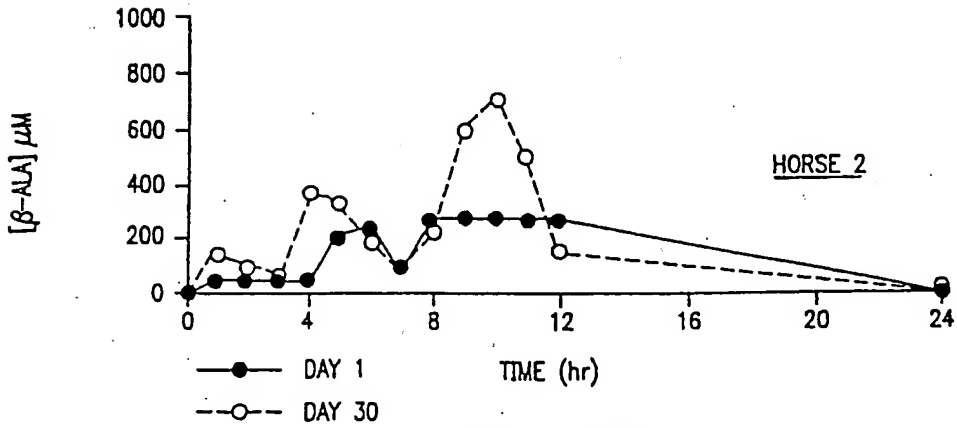


FIG. 3B

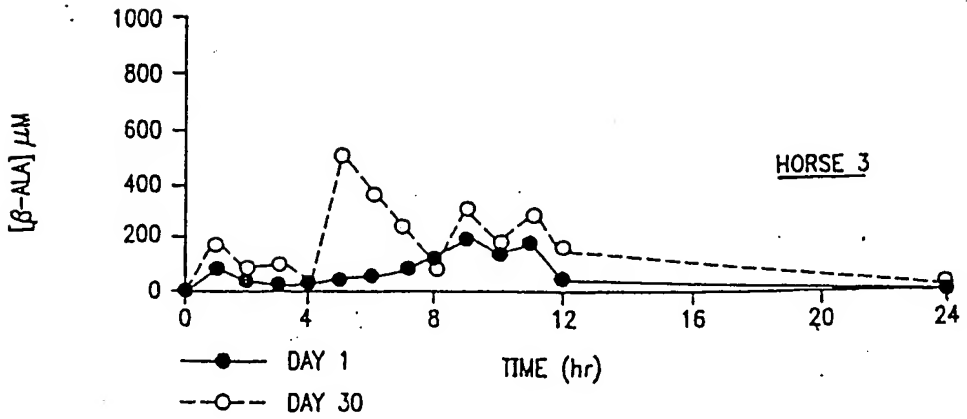


FIG. 3C

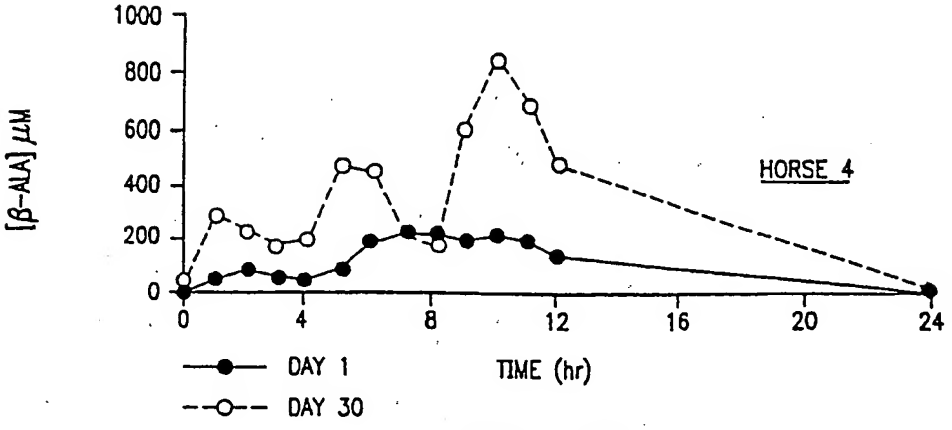


FIG. 3D

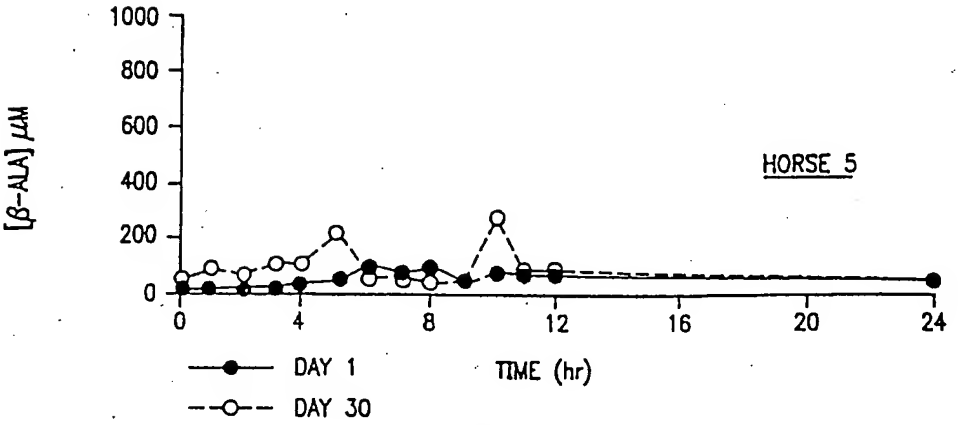


FIG. 3E

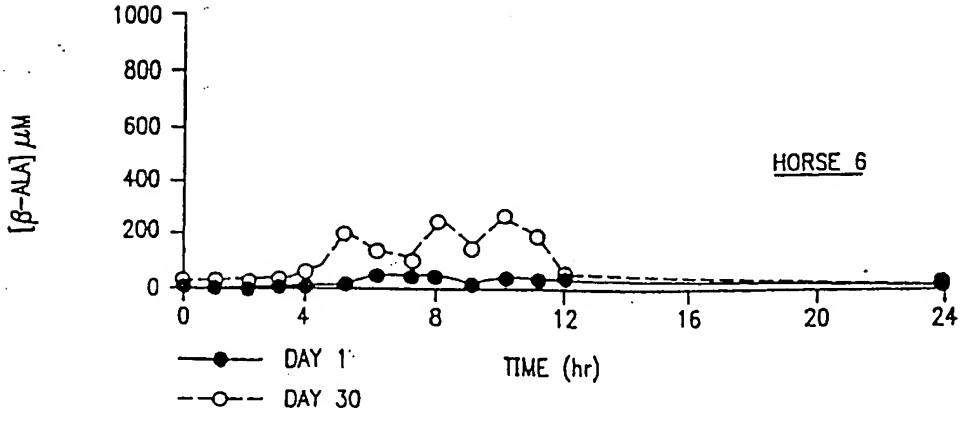


FIG. 3F

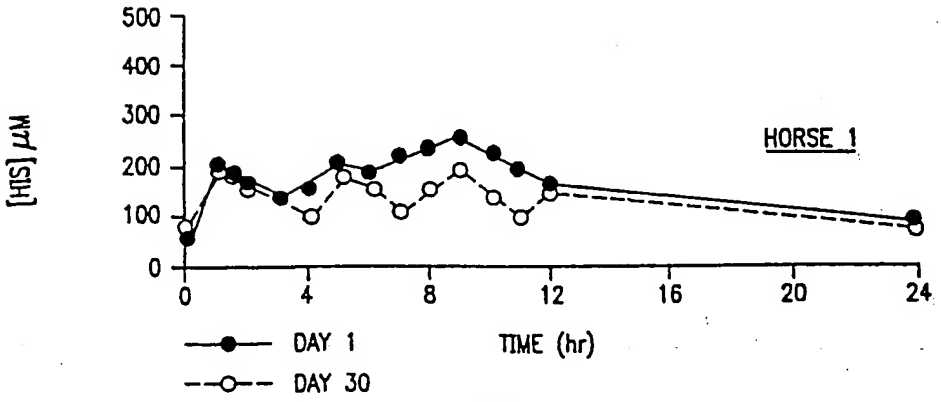


FIG. 4A

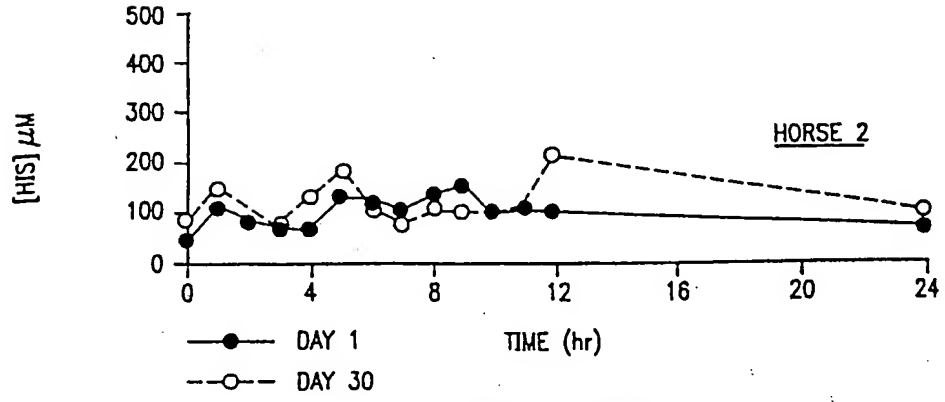


FIG. 4B

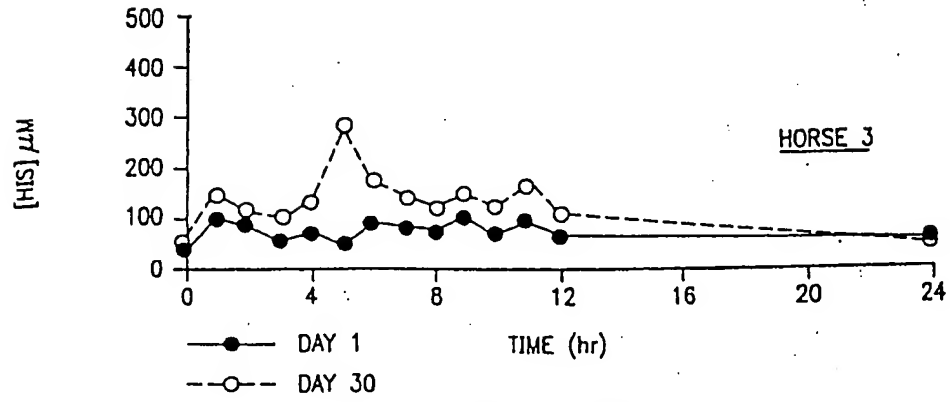


FIG. 4C

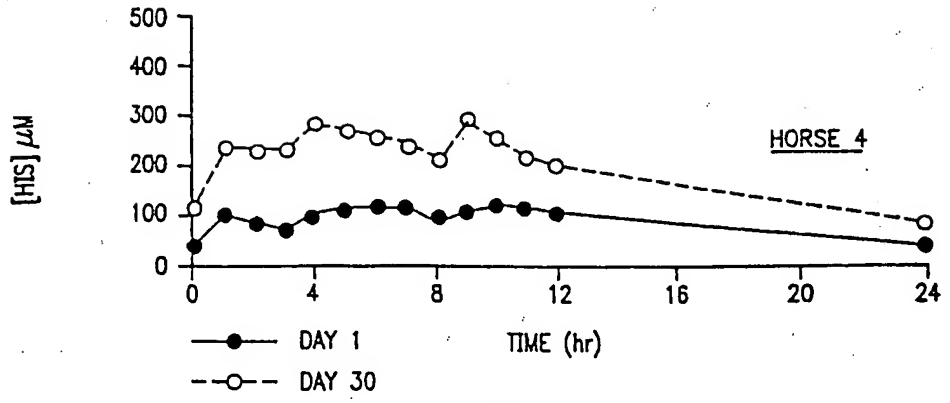


FIG. 4D

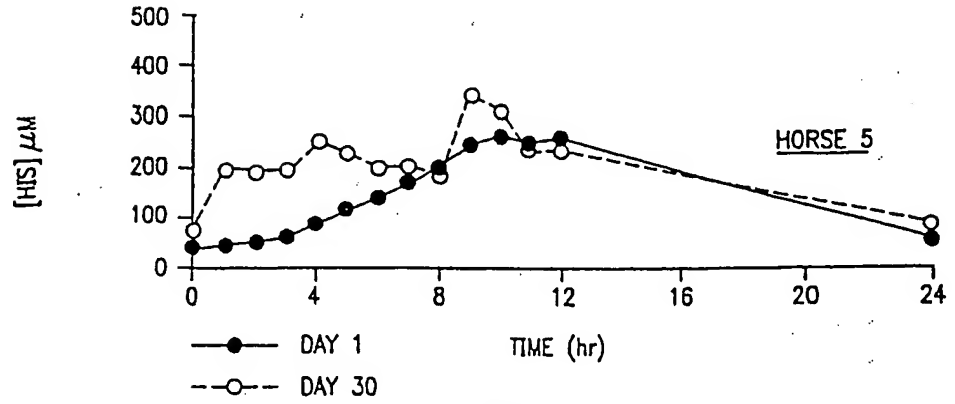


FIG. 4E

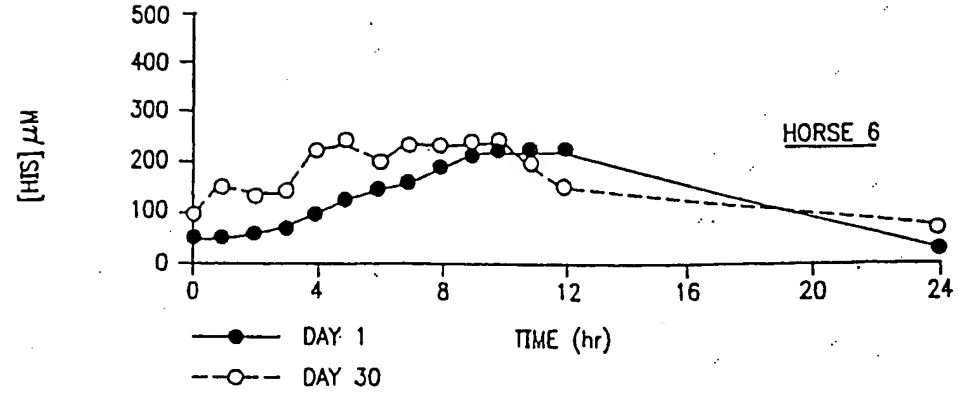


FIG. 4F

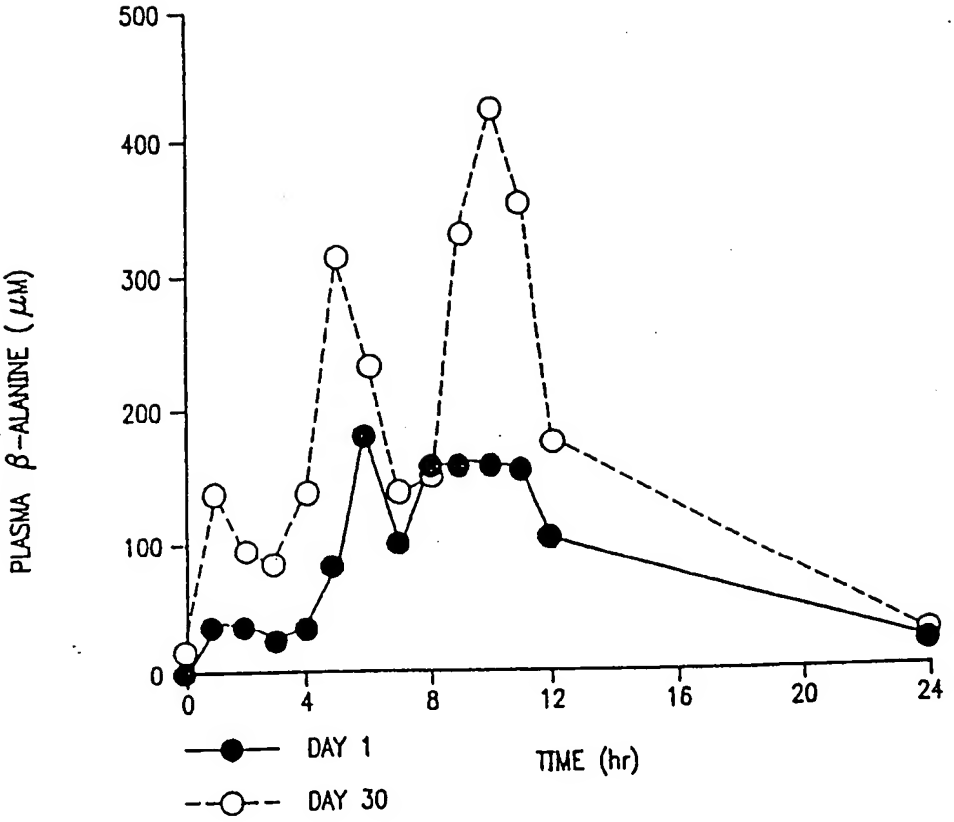

500
400
300
200
100
0
PLASMA β-ALANINE (μM)
0
4
8
12
16
20
24
TIME (hr)
DAY 1
DAY 30

FIG. 5

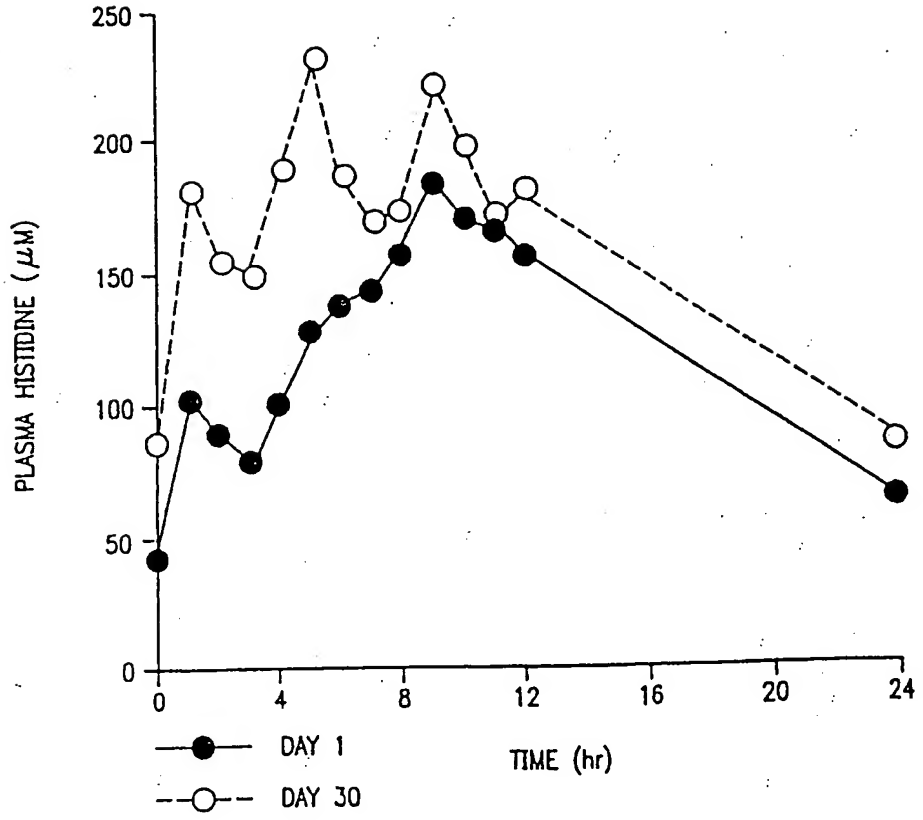

250
200
150
100
50
0
PLASMA HISTIDINE (μM)
0
4
8
12
16
20
24
TIME (hr)
DAY 1
DAY 30

FIG. 6

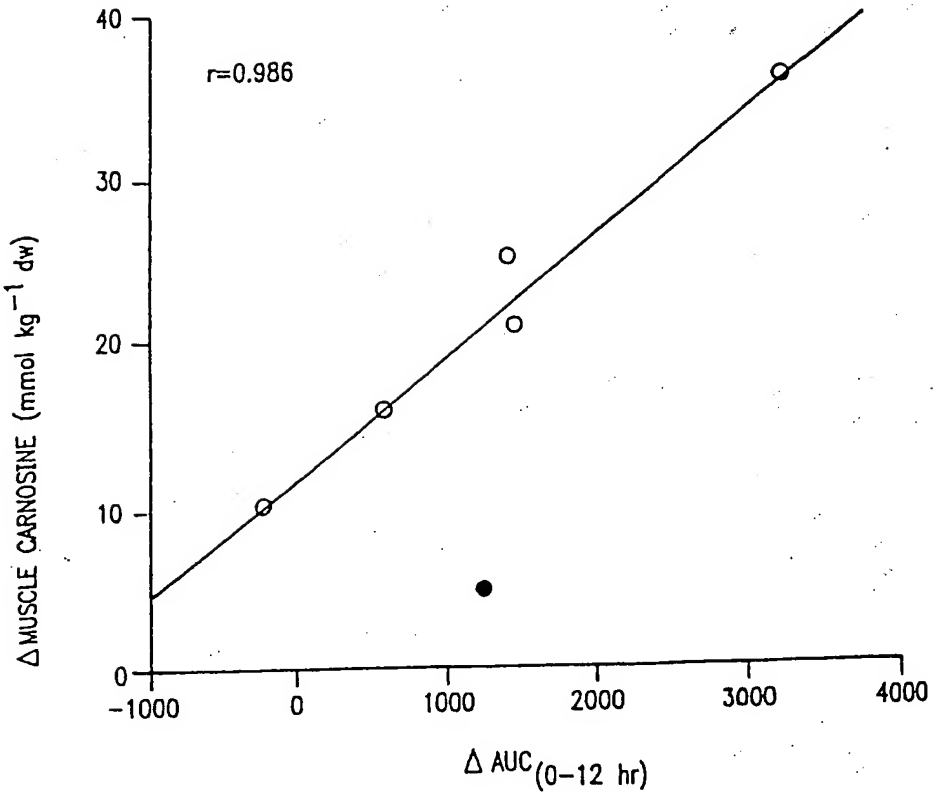

r=0.986
Δ MUSCLE CARNOSINE (mmol kg^{-1} dw)
Δ AUC$_{(0-12\ hr)}$
40
30
20
10
0
−1000
0
1000
2000
3000
4000

FIG. 7

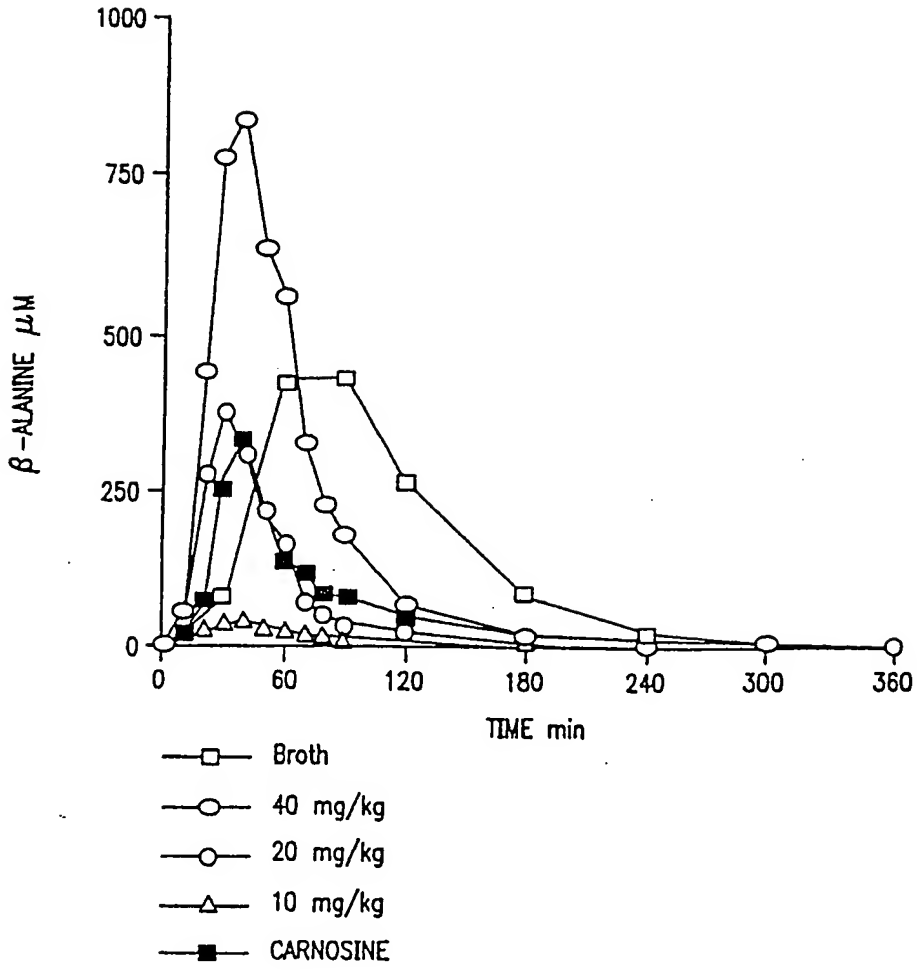

1000
750
500
250
0
β-ALANINE μM
0
60
120
180
240
300
360
TIME min
Broth
40 mg/kg
20 mg/kg
10 mg/kg
CARNOSINE

FIG. 8

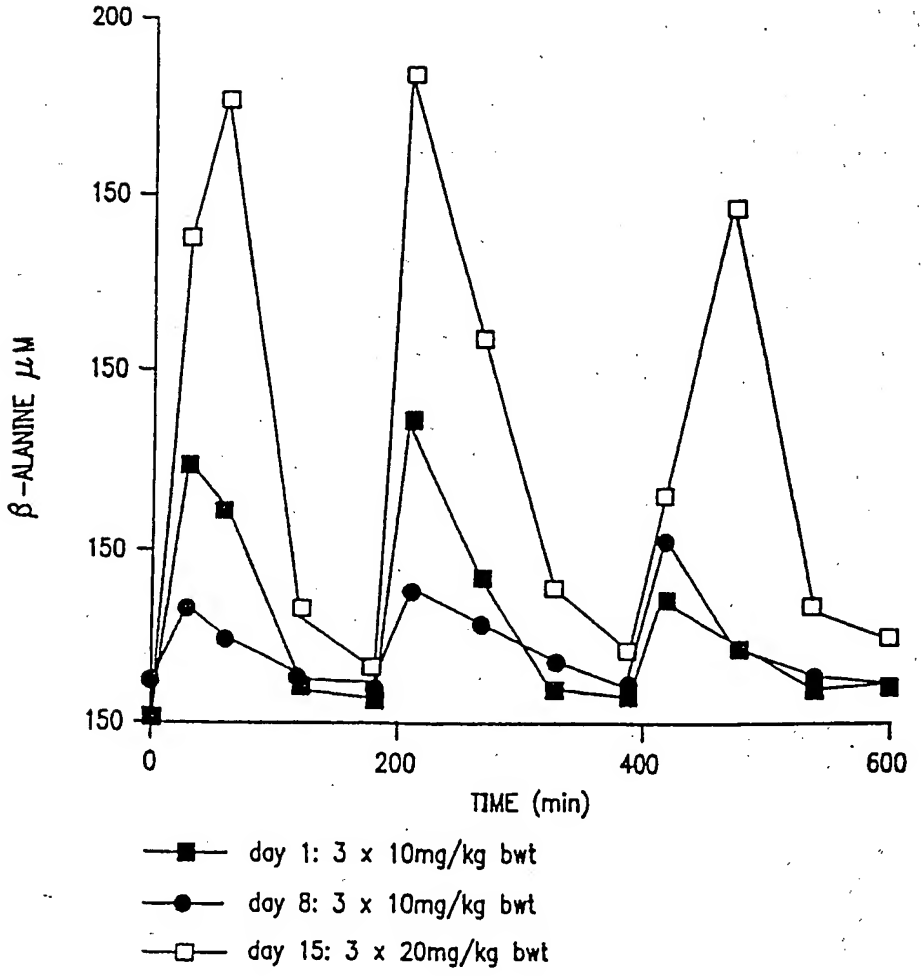

200
150
150
150
150
β-ALANINE μM
0
200
400
600
TIME (min)
day 1: 3 x 10mg/kg bwt
day 8: 3 x 10mg/kg bwt
day 15: 3 x 20mg/kg bwt

FIG. 9

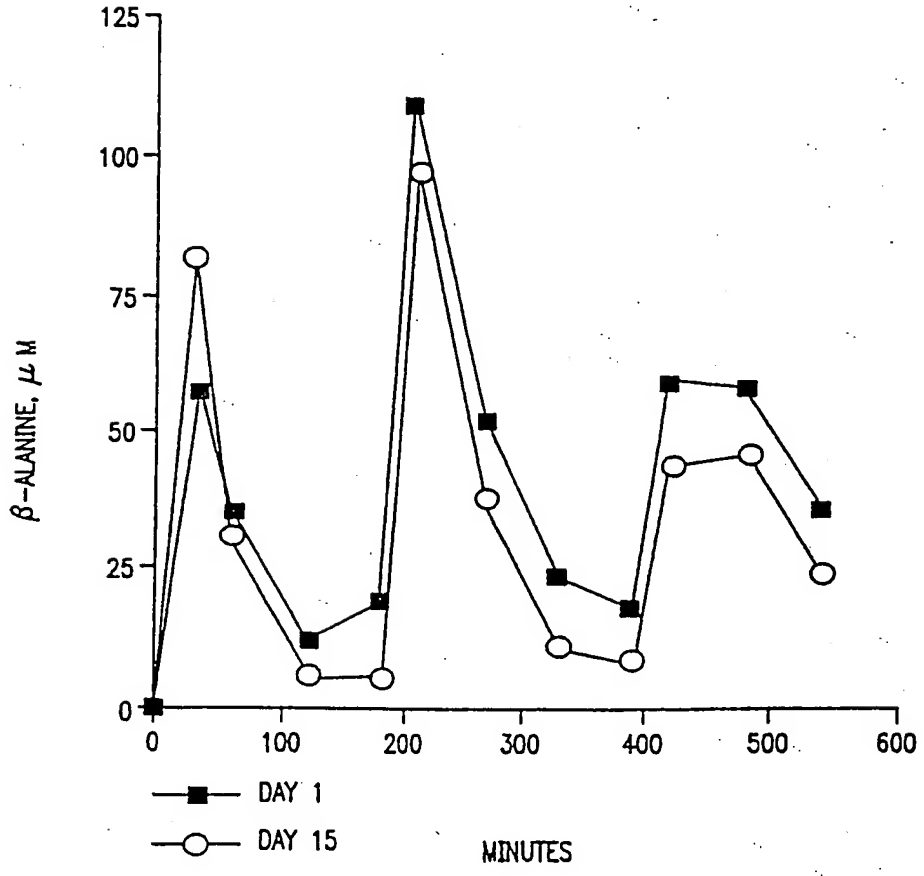

125
100
75
50
25
0
β-ALANINE, μM
0
100
200
300
400
500
600
DAY 1
DAY 15
MINUTES

FIG. 10

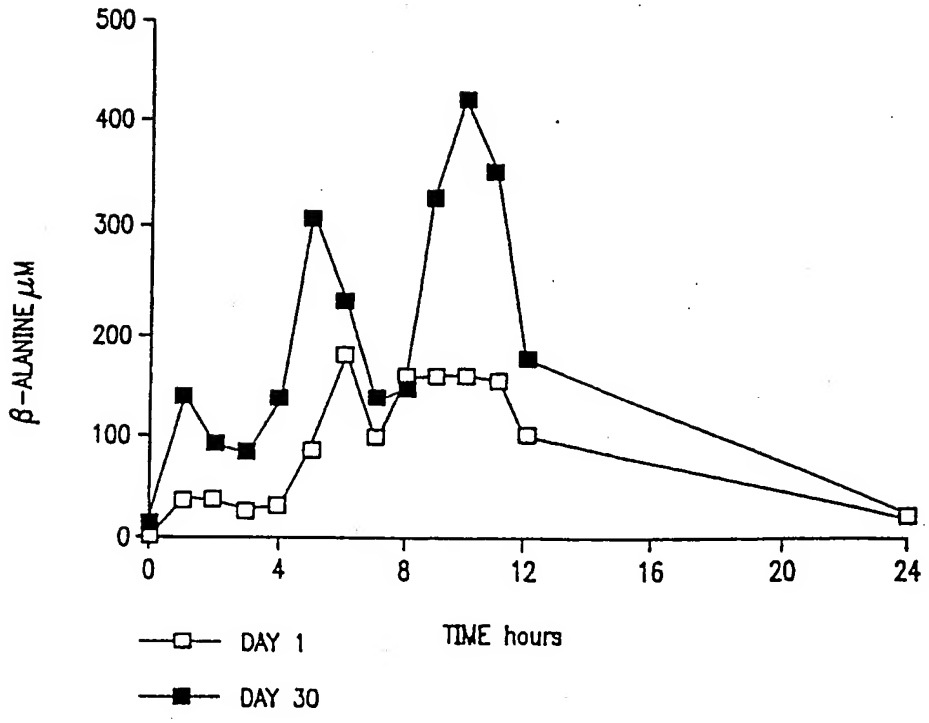
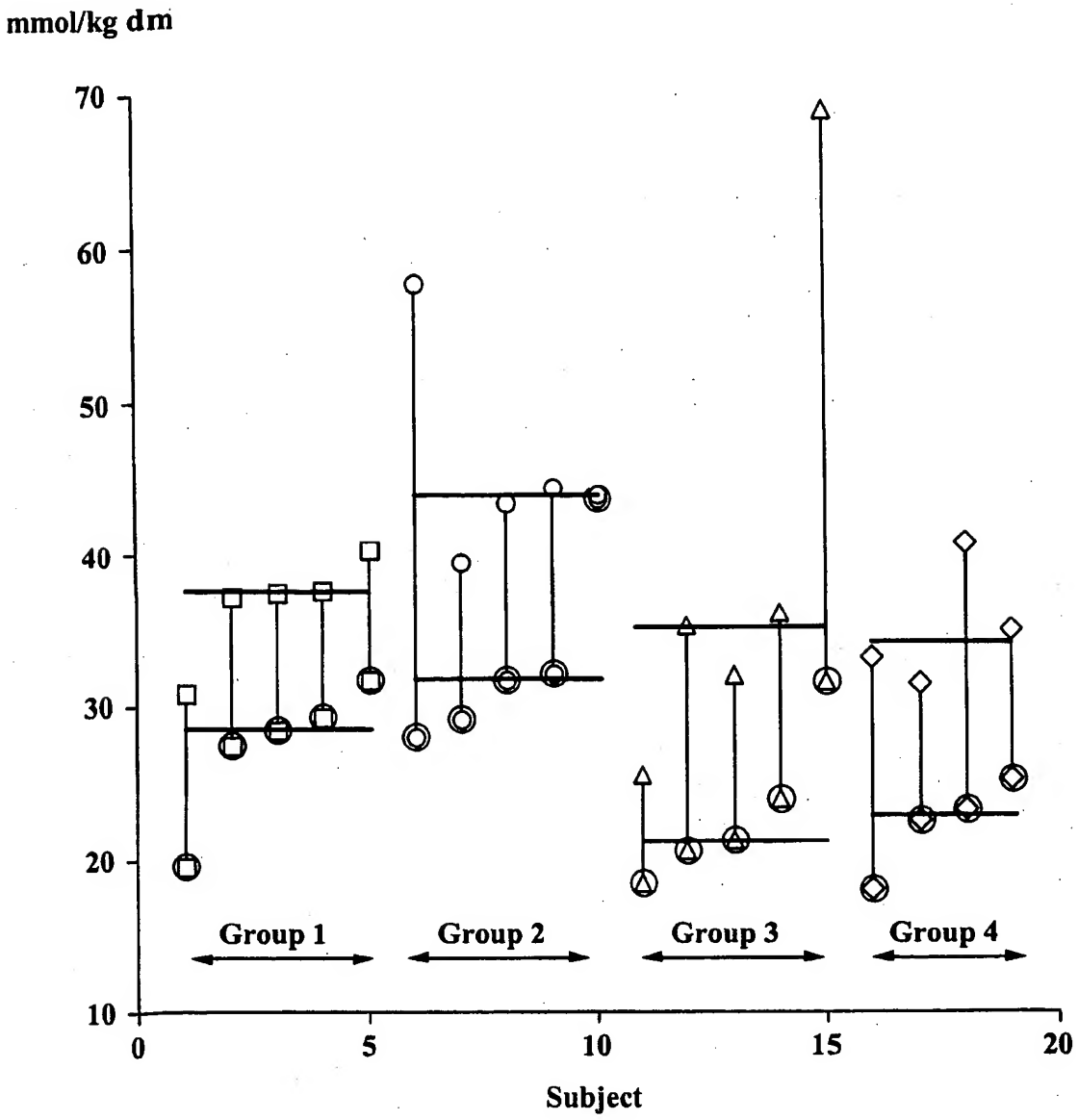

500
400
300
200
100
0
β-ALANINE μM
0
4
8
12
16
20
24
TIME hours
DAY 1
DAY 30

FIG. 11

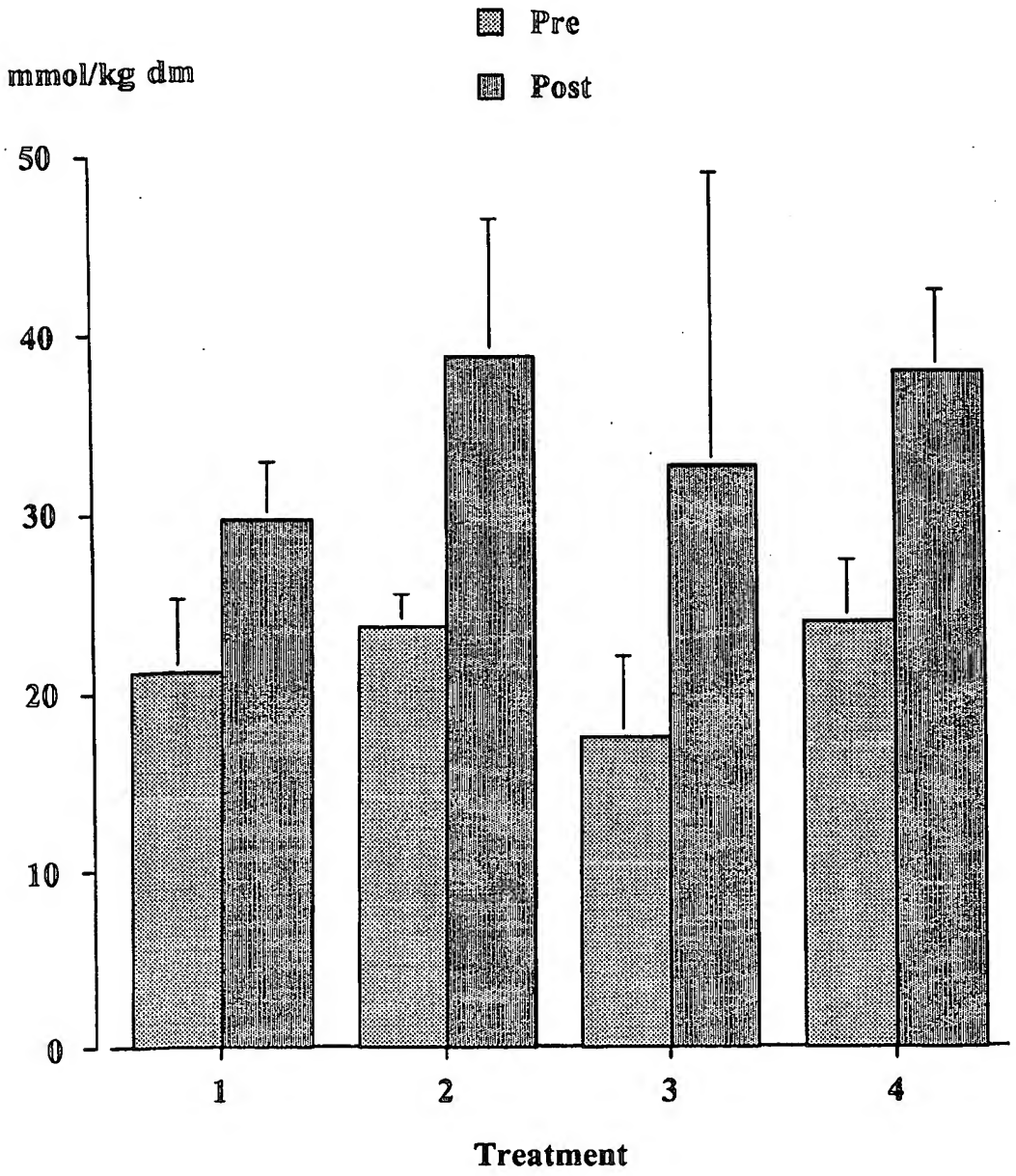
08457-002005

Figure 12



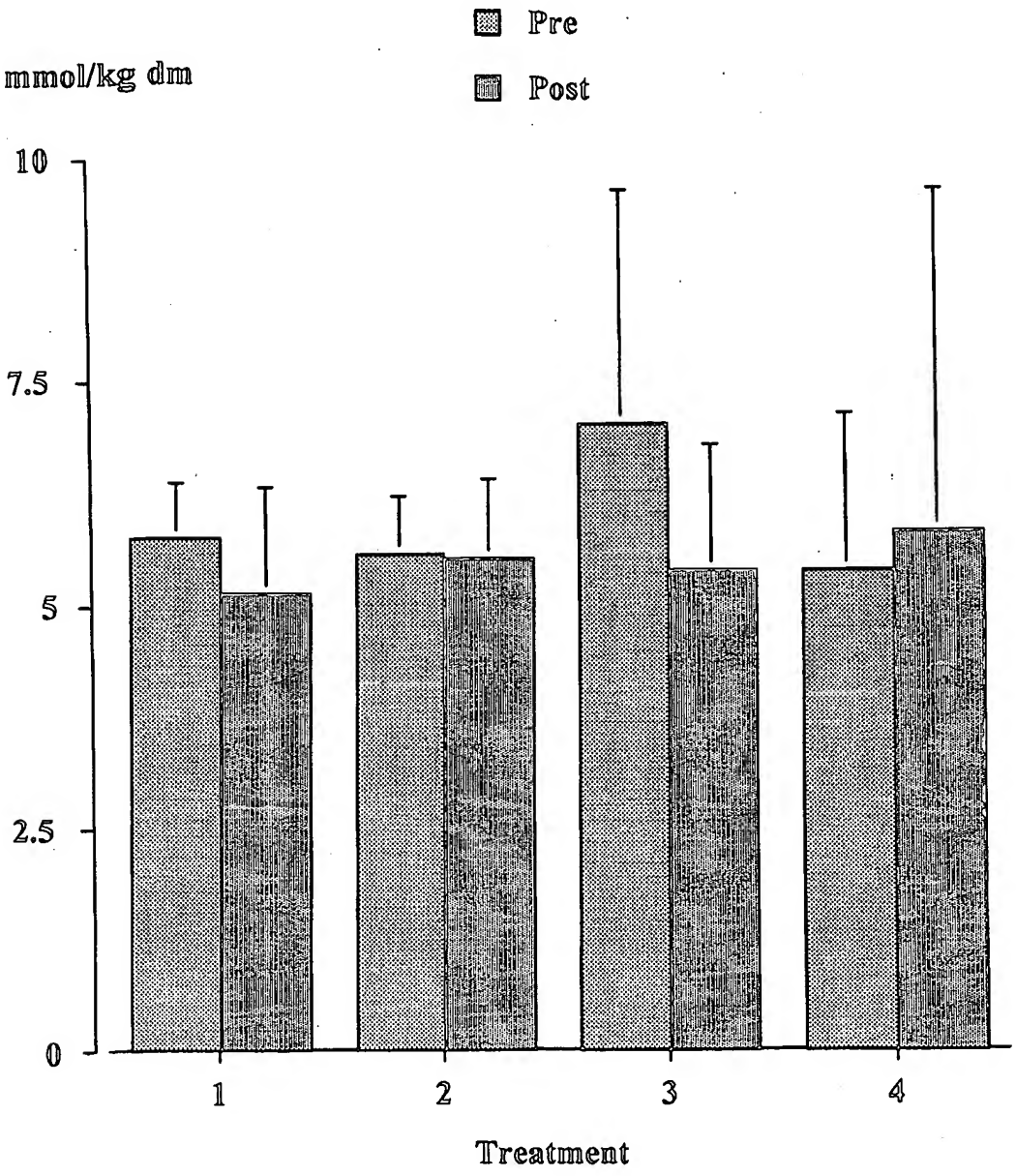
08457-002005

Figure 13



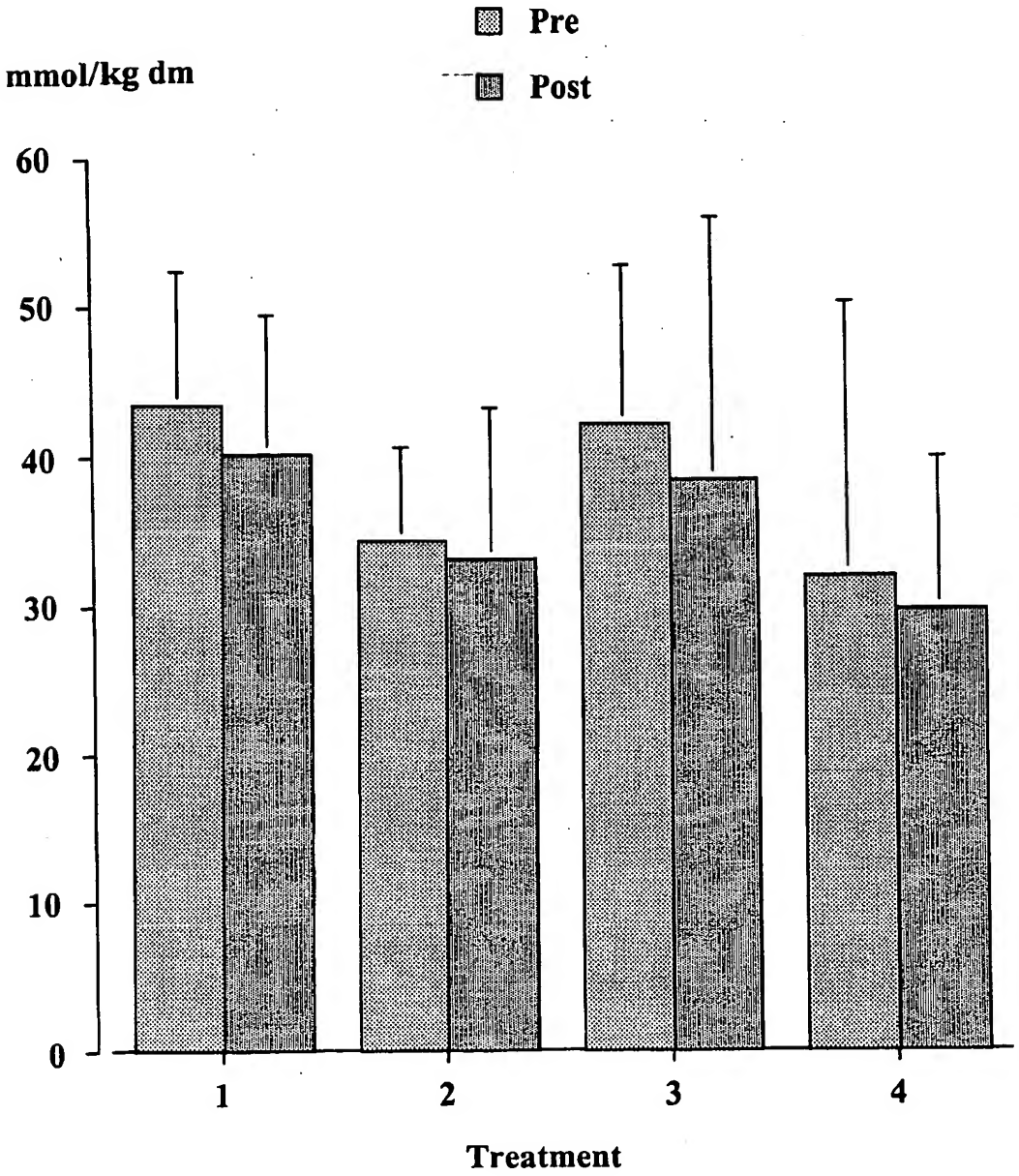
08457-002005

Figure 14



08457-002005

Figure 15



08457-002005

Figure 16

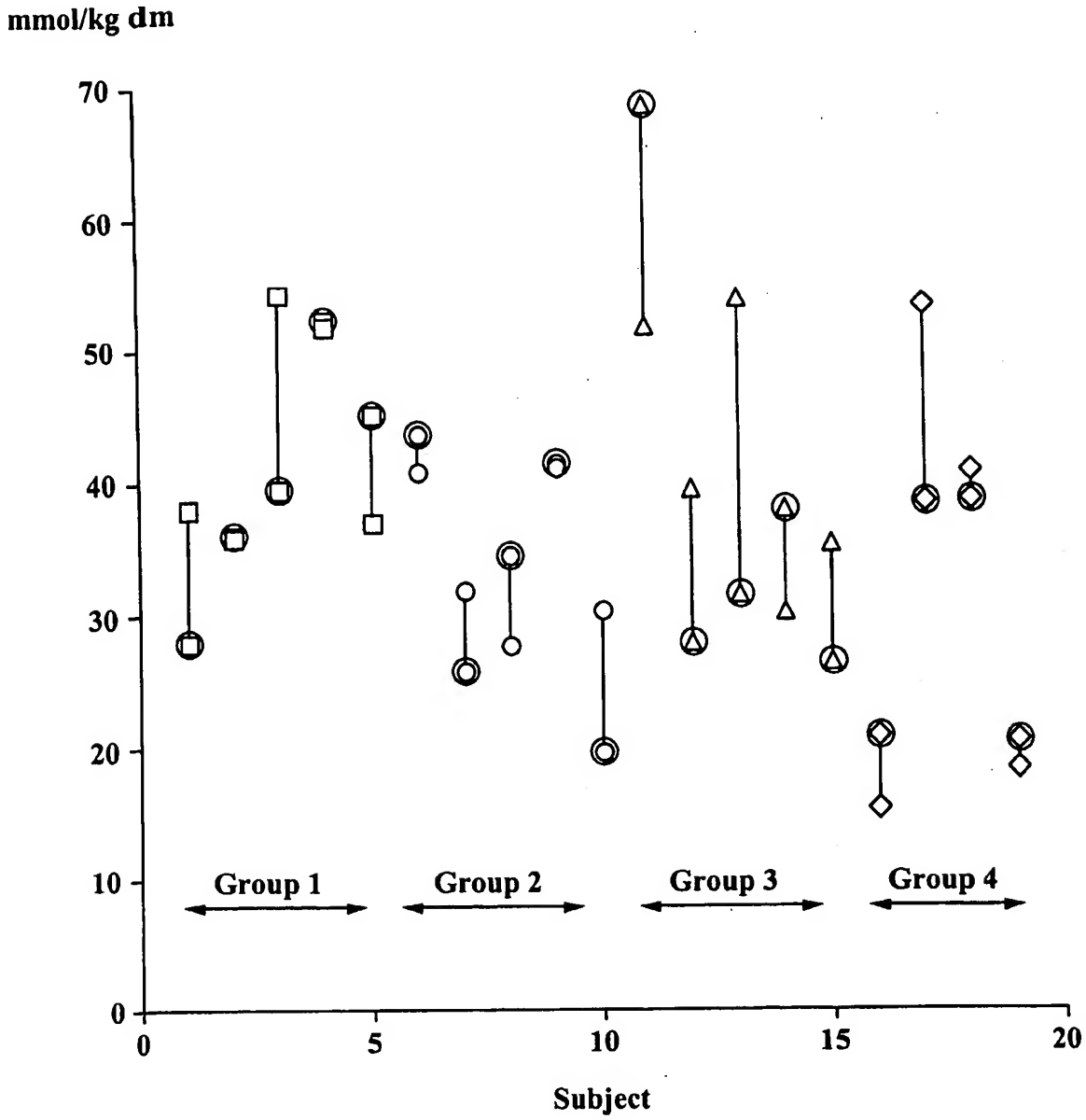


Figure 17

Table 9

TREAT-MENT		DOSING TIMES								AVG DOSE (mg x times)	PER DAY	
		9am	10am	11am	12noon	3pm	4pm	5pm	6pm		GIVEN	as ß-Ala
1 Beta alanine (ß-Ala) n = 5	Week 1		800mg		800mg		800mg		800mg	800 x 4	3.2g	3.2g
	2		800mg		800mg		800mg		800mg	800 x 4	3.2g	3.2g
	3		800mg		800mg		800mg		800mg	800 x 4	3.2g	3.2g
	4		800mg		800mg		800mg		800mg	800 x 4	3.2g	3.2g
										Total 90g ß-Ala in 4W		
2 Beta alanine (ß-Ala) n = 5	Week 1	800mg	400mg	400mg	400mg	800mg	400mg	400mg	400mg	500 x 8	4.0g	4.0g
	2	800mg	400mg	400mg	800mg	800mg	400mg	400mg	800mg	600 x 8	4.8g	4.8g
	3	800mg	400mg	800mg	800mg	800mg	400mg	800mg	800mg	700 x 8	5.6g	5.6g
	4	800mg	800mg	800mg	800mg	800mg	800mg	800mg	800mg	800 x 8	6.4g	6.4g
										Total 146g ß-Ala in 4W		
3 Carnosine (C) n = 5	Week 1	1500mg	1500mg	1000mg	1000mg	1500mg	1500mg	1000mg	1000mg	1250 x 8	10g	4.0g
	2	1500mg	1500mg	1500mg	1500mg	1500mg	1500mg	1500mg	1500mg	1500 x 8	12g	4.8g
	3	2000mg	1500mg	1500mg	2000mg	2000mg	1500mg	1500mg	2000mg	1750 x 8	14g	5.6g
	4	2000mg	2000mg	2000mg	2000mg	2000mg	2000mg	2000mg	2000mg	2000 x 8	16g	6.4g
										Total 364g C in 4W (145g ß-Ala)		